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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF FOR THE APPELLANT

Ex parte Kai MUSTONEN, *et al.*

UTILIZATION OF GEOGRAPHIC LOCATION INFORMATION IN IP
ADDRESSING

Serial No. 10/717,600

Appeal No.:

Group Art Unit: 2616

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Appeal Brief



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Appellant:

Kai MUSTONEN, *et al.*

Appeal No.:

Serial Number: 10/717,600

Group Art Unit: 2616

Filed: November 21, 2003

Examiner: Patel, Chandrahas B.

For: UTILIZATION OF GEOGRAPHIC LOCATION INFORMATION IN IP ADDRESSING

BRIEF ON APPEAL

April 1, 2008

This is an appeal from the final rejection set forth in an Official Action dated October 23, 2007, finally rejecting claims 22-46, all of the claims pending in this application, as being unpatentable over Tiuri (U.S. Patent No. 6,829,230). A Request for Reconsideration was timely filed on December 21, 2007. An Advisory Action was issued on January 14, 2008, indicating that the response of December 21, 2007, did not place the application into condition for allowance. Therefore, claims 22-46 remain rejected. A Notice of Appeal and Pre-Appeal Brief Request for Review were timely filed on January 23, 2008. A Notice of Panel Decision from Pre-Appeal Brief Review was issued on March 3, 2008, indicating that the rejections of claims 22-46 were maintained. Accordingly, this Appeal Brief is being timely filed.

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I. REAL PARTY IN INTEREST

The real party in interest in this application is Nokia Corporation of Espoo, Finland, by virtue of an Assignment by the inventors, which assignment was recorded at Reel

017956, Frame 0045, on July 18, 2006.

II. STATEMENT OF RELATED APPEALS AND INTERFERENCES

There are no known related appeals and/or interferences which will directly effect or be directly effected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 22-46, all of the claims pending in the present application are the subject of this appeal.

IV. STATUS OF AMENDMENTS

Claim 22-46 were amended after final rejection. In the Advisory Action, the Examiner indicated that the claim amendments were entered (See Advisory Action).

V. SUMMARY OF THE INVENTION

Claim 22, upon which claims 23-32 are dependent, recites a method, which includes generating a unique internet protocol address from the geographical location data (Specification, page 6, lines 24-26). The internet protocol address has a global prefix portion and a local suffix portion (Specification page 6, lines 27-28, Fig. 1, prefix 10 and suffix 11). The geographical location information is coded in the suffix portion of the address (Specification, page 6, line 32-33, page 8, line 36 – page 9, line 1).

Claim 33, upon which claims 34-42 are dependent, recites an apparatus, which includes a router configured to route internet protocol packets (Specification, page 9,

lines 2-3, Fig. 2, router RT) in which a unique address is based on geographical location information and has a global prefix portion and a local suffix portion (Specification, page 6, lines 24-28, Fig. 1, prefix 10 and suffix 11). The apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork (Specification, page 7, lines 26-28, page 8, line 36 – page 9, line 1).

Claim 43 recites an apparatus, which includes routing means for routing internet protocol packets (Specification, page 9, lines 2-3, Fig. 2, router RT) in which a unique address is based on geographical location information and has a global prefix portion and a local suffix portion (Specification, page 6, lines 24-28, Fig. 1, prefix 10 and suffix 11). The apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork (Specification, page 7, lines 26-28, page 8, line 36 – page 9, line 1, Fig. 2, Subnet, router RT, Nodes 1-4, and node MOB).

Claim 44 recites a unique internet protocol address embodied on a computer-readable medium, (Specification, page 6, lines 24-26, Fig. 1) which includes a global prefix portion and a local suffix portion (Specification, page 6, lines 26-27, Fig. 1, prefix 10 and suffix 11). The unique internet protocol address is generated from geographical location data of one of a node and a router connected to the node (Specification, page 6, lines 32-33). The geographical location information is coded in the suffix portion of the unique internet protocol address (Specification, page 6, line 32-33, page 8, line 36 – page 9, line 1).

Claim 45 recites a routing component, (see Specification, page 7, lines 23-26)

which includes a router configured to route internet protocol packets (Specification, page 9, lines 2-3, Fig. 2, router RT). A unique internet protocol address is based on geographical location information of either the routing component or a node connected to the routing component (Specification, page 9, lines 15-20). The unique internet protocol address has a global prefix portion and a local suffix portion (Specification, page 6, lines 24-28, Fig. 1, prefix 10 and suffix 11). The routing component is configured to utilize the geographic location information, the geographic location information being coded to the suffix portion of the unique internet protocol address (Specification, page 6, line 32-33, page 8, line 36 – page 9, line 1), in routing packets to destination nodes located in a subnetwork (Specification, page 7, lines 26-28, page 8, line 36 – page 9, line 1, Fig. 2, Subnet, router RT, Nodes 1-4, and node MOB).

Claim 46 recites a system, which includes a router configured to route data packets between internet and a subnetwork, the subnetwork comprising a group of nodes (Specification, page 9, lines 1-5, Fig. 2, Subnet, router RT, Nodes 1-4, and node MOB).

A unique internet protocol address is based on geographical location information of either the router or one node of the group of nodes (Specification, page 9, lines 15-20). The unique internet protocol address has a global prefix portion and a local suffix portion (Specification, page 6, lines 24-28, Fig. 1, prefix 10 and suffix 11), the router being configured to utilize the geographic location information, the geographic location information being coded to the suffix portion of the unique internet protocol address (Specification, page 6, line 32-33, page 8, line 36 – page 9, line 1), in routing packets to destination nodes located in the subnetwork (Specification, page 7, lines 26-28, page 8, line 36 – page 9, line 1, Fig. 2, Subnet, router RT, Nodes 1-4, and node MOB).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are the rejection of claims 22-25, 28-36, 39-43, and 45-46 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,829,230 of Tiuri ("Tiuri"), the rejection of claims 26 and 37 under 35 U.S.C. § 103(a) as being unpatentable over Tiuri, in view of U.S. Patent No. 6,249,820 of Dobbins et al. ("Dobbins"), and further in view of U.S. Patent No. 6,952,729 of Bialk et al. ("Bialk"), the rejection of claims 27 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Tiuri, in view of U.S. Patent No. 6,147,986 of Orsic ("Orsic"), and the rejection of claim 44 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. As will be discussed below, these rejections are in error, and claims 22-46 should all be found to meet the U.S. requirements for patentability under 35 U.S.C. § 101, § 102, and § 103.

VII. APPELLANT'S ARGUMENTS

Appellants respectfully submit that each of the pending claim 22-46 recites patentable subject matter that is not taught, disclosed, or suggested by the cited art. Each of the claims is being argued separately, and thus, each of the claims stands or falls alone.

A. Claims 22-25, 28-36, and 39-46 are not obvious in view of Tiuri

In the Final Office Action, claims 22-25, 28-36, and 39-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tiuri. Appellants submit that each of claims 22-25, 28-36, and 39-46 recite subject matter that is not obvious in light of Tiuri, and such,

the Board's reversal of the rejection is respectfully requested.

1) Claim 22

Claim 22, recites a method, which includes generating a unique internet protocol address from the geographical location data. The internet protocol address has a global prefix portion and a local suffix portion. The geographical location information is coded in the suffix portion of the address.

Appellants respectfully submit that claim 22 would not have been obvious to one of ordinary skill in the art, at the time the invention was made, and that the Final Office Action has failed to establish a prima facie case of obviousness.

Tiuri discloses routing in a packet switched network. An address allocated to a user of a packet switched network includes information identifying a geographical location of the user, such as longitude, latitude, and altitude. The address is used to route data packets over the network from a remote location to the user, taking into account the geographical location of each router in relation to the location of the user. The geographical location of the user may be determined using a Global Positioning System receiver. The information identifying the geographical of the user may be contained in a header of each data packet to be routed (see Tiuri at Abstract). Furthermore, Tiuri discloses that when a mobile terminal is registered with a cellular telecommunication network, the internet protocol address allocated to the terminal comprises a prefix corresponding to the location of the connection node and a suffix part corresponding to the terminal identity (see Tiuri at column 6, lines 9-15).

The Final Office Action correctly concluded that Tiuri fails to disclose, or suggest,

all of the elements of claim 22 (and thus, fails to anticipate claim 22 under 35 U.S.C. § 102) because Tiuri fails to disclose, or suggest, “wherein the geographical location information is coded in the suffix portion of the address,” as recited in claim 22. However, the Final Office Action took the position that “wherein the geographical location information is coded in the suffix portion of the address,” as recited in claim 22 would have been obvious to one of ordinary skill in the art, at the time the invention was made (see Final Office Action at page 3). Thus, the only issue is one of obviousness under 35 U.S.C. § 103.

As reiterated by the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385 (2007), the framework for the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries are: (a) determining the scope and content of the prior art; (b) ascertaining the differences between the claimed invention and the prior art; and (c) resolving the level of ordinary skill in the pertinent art (see *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966); see also MPEP § 2141 – II. The Basic Factual Inquiries of *Graham v. John Deere Co.*).

The Supreme Court in *KSR* further noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit. The Court stated that “rejections on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (see *KSR*, 550 U.S. at ___, 82 UPSQ2d at 1396; see also

MPEP § 2141 III – Rationales to Support Rejections Under 35 U.S.C. § 103).

As discussed above, the Final Office Action took the position that “wherein the geographical location information is coded in the suffix portion of the address,” as recited in claim 22 would have been obvious to one of ordinary skill in the art, at the time the invention was made. The Final Office Action’s sole reasoning for its legal conclusion of obviousness is that the claimed element is a “rearranging of parts of an invention” and that “it has been held that rearranging parts of an invention involves only routine skilled [sic] in the art,” citing *In re Japiske*, 86 USPQ 70 (C.C.P.A. 1950) (see Final Office Action at page 3). For the reasons discussed below, Appellants respectfully submit that the Final Office Action’s rationale is insufficient to support a rejection under 35 U.S.C. § 103 because the facts of *In re Japiske* significantly differ from the facts of the present case, and because the Final Office Action’s rationale fails to take into consideration Applicant’s demonstration of the criticality of the claimed limitation “wherein the geographical location information is coded in the suffix portion of the address,” as recited in claim 22.

The claims at issue in *In re Japiske* were directed to a hydraulic power press.

Claim 3, of the claims at issue in *In re Japiske*, read as follows:

3. In a hydraulic power press, the combination of, supporting means in vertical alignment with a movable platen, oppositely disposed transfer tables having covers of substantially the same horizontal extent as said supporting means, movable means carrying said covers on to and away from said supporting means, means depending from said covers and arranged to pass through an aligned opening in said supporting means, and means disposed in alignment with said opening for contact by said depending means to start the pressing operation of said hydraulic press. (see *In re Japikse*, 86 USPQ at 73 (emphasis added)).

With respect to claim 3, the court held that the claim read on the prior art reference Cannon, except as to the final limitation, “means disposed in alignment with said opening

for contact by said depending means to start the pressing operation of said hydraulic press.” The court further held that Cannon, while not disclosing the final limitation, did disclose a starting switch in a different position, and that “there would be no invention in shifting the starting switch disclosed by [the reference] to a different position since the operation of the device would not thereby be modified.” (see *In re Japikse*, 86 USPQ at 73).

Appellants respectfully submit that the court’s holding was based on the reasoning that the rearrangement of parts would not modify the operation of the device because the placement of the starting switch did not modify how the hydraulic press operated. In other words, the court’s holding was not so broad that any rearranging of parts of an invention would be obvious to one of ordinary skill in the art, but only the rearranging of parts of an invention where the operation of the device was not modified.

In contrast to *In re Japikse*, coding the geographical location information in the suffix portion of an internet protocol address as opposed to the prefix portion, in the present invention, fundamentally modifies how embodiments of the present invention operate. Specifically, as discussed below, coding the geographical location information in the suffix portion of an internet protocol address rather than the prefix portion modifies how embodiments of the present invention operate in at least two ways: (1) coding the geographical location information in the suffix portion assists in guarantying a truly unique internet protocol address; and (2) coding the geographical location information in the suffix portion provides for dynamically generating an IP address for a roaming mobile terminal without requiring an associated router to change its address.

As discussed in the specification of the present application, the field of the

invention is the protocol for data transmission over the Internet, e.g. Internet protocol. IPv6 is a network layer for packet-switched inter-networks. IPv6 is designed as the successor of IPv4, the current version of the Internet protocol. The changes from IPv4 to IPv6 fall into five main categories, with the most significant of the categories being the expansion of the addressing capabilities. The address size has increased from 32 bits to 128 bits to support more levels of addressing hierarchy, a larger number of addressable nodes, and a simpler auto configuration of addresses (Specification, page 1, lines 11-25).

In IPv6, the addresses used for IP addressing are divided into two parts: prefix and suffix. In IPv6, the prefix part uniquely indicates a certain link or subnet, while the suffix part indicates a host in the link or subnet. Thus, in an IP network, such as a Ethernet Local Area Network (LAN) or a Wireless Local Area Network (WLAN), a computer connected to the IP network has an IP address, which consists of a prefix part, and a suffix part. The prefix part indicates a router where the respective link in the network is located, and the suffix part indicates a unique link address where the computer is located (Specification, page 1, lines 14-23).

Furthermore, in IPv6, geographic location of a computer connected to the IP network can be used to generate the unique IP address. Thus, a router, or other network element, of the IP network is able to harness geographical location information of a computer easily, from the unique IP address of the computer (Specification page 2, lines 8-16; see also WO/0122656).

In an IPv6 network, a stateless address auto configuration of a network is managed so that the hosts of the IP network, which are connected to the link, adopt their link address from the MAC address of the network card of the IP network. MAC

addresses are supposed to be unique as the MAC addresses to network cards are given according to the EUI-64 standard. This standard requires manufactures of the network cards to follow that standard and give unique addresses to each network card from the address space allocated for them. The router of the IP network then advertises its address to the link so that any computer can auto configure itself to the network by adopting the IP prefix part of an address from the router address and by adopting the link address from the MAC address of the router (Specification, page 2, line 24 – page 3, line 8).

As discussed in the specification, generating the prefix portion of an IP address from the geographical information, does not necessary guarantee a unique IP address, because, the address prefix generated from the geographical information would replace the router address, which would only leave the MAC address to distinguish one computer from a second computer on the network. As discussed above, while MAC addresses are supposed to be unique, there is no guarantee that the MAC address is unique, which can lead to address conflicts, when the auto-configuration process is performed. However, if the geographic information is coded into the suffix portion of the IP address, the geographical information replaces the MAC address, and the geographical information can be relied upon to ensure that a unique IP address is generated for each computer (Specification, page 3, lines 17-29, page 4, lines 8-26).

Furthermore, as discussed in the specification, the prefix portion of the IP address is global in nature. This means that if the prefix is generated from the geographic location information, and the geographic location information changes, such as when the computer is a wireless terminal and is moved to a different geographic location, then all

routers within the network must change their IP address accordingly. In contrast, if the suffix portion is generated from the geographical location information, then any changes to the geographical location information only change the suffix portion of the IP address and do not require all routers to change their addresses accordingly (Specification, page 3, lines 20-29).

Therefore, Appellants respectfully submit that the coding of the geographical location information at the suffix portion of the internet protocol address rather than the prefix portion fundamentally modifies how embodiments of the invention operate, because coding the geographical location information at the suffix portion of the internet protocol address allows embodiments of the invention to provide features that are not possible through coding the geographical location information at the prefix portion.

Appellants further respectfully submit that, in general, *In re Japiske* has limited applicability in electric inventions, because rearranging of components will often modify how the invention works in the electronic field. Specifically, as discussed above, *In re Japiske* was directed towards a mechanical invention, whereas the subject matter of the present invention relates to internet protocol addresses. The reasoning behind *In re Japiske* has less applicability to electrical inventions, as opposed to mechanical inventions, because rearranging of components in an electrical invention will often modify how the invention operates.

For all these reasons, Appellants respectfully submit that the facts of *In re Japiske* are substantially distinct from the facts of the present case, and that the Final Office Action failed to address these substantial differences in its obviousness analysis. Therefore, Appellants respectfully submit that the Final Office Action's reliance on the

holding of *In re Japiske* is insufficient rationale to support the conclusion that claim 22 is obvious in light of Tiuri.

Furthermore, Appellants submit that the Final Office Action fails to take into account that Tiuri provides no suggestion of the present invention, specifically, coding geographical location information in the suffix portion of an internet protocol address, because Tiuri specifically discloses coding geographical location information in the prefix portion of an internet protocol address.

Tiuri discloses that when a mobile terminal is registered with a cellular telecommunication network, the internet protocol address allocated to the terminal comprises a prefix corresponding to the location of the connection node and a suffix part corresponding to the terminal identity (see Tiuri at col. 6, lines 9-15). As described above, when the geographical location information is assigned to a prefix portion of the internet protocol address, the uniqueness of the IP address is not guaranteed because the suffix portion merely contains the MAC address assigned the router, and, as discussed above, the MAC address is not necessarily unique. Furthermore, as discussed above, if the prefix is generated from the geographical location information, when the geographical location information changes, the global prefix of the IP address will change, and thus, the changes must be applied to all routers globally, due to the global nature of the prefix (Specification, page 3, lines 17-29). None of these considerations are discussed in Tiuri, as Tiuri is merely directed towards coding the geographical location in the prefix portion.

In contrast, according to the embodiments of the present invention, by using the geographical location in the suffix portion, it can be ensured that mobile or stationary devices will have unique IP addresses, because the geographical location information

replaces the MAC address. Furthermore, when the geographical information changes, resulting in changes in the suffix portion of the IP address, those changes will not require changes globally to the routing tables of routers. Tiuri fails to disclose or suggest any of these considerations, and thus, fails to disclose or suggest a motivation to modify the system of Tiuri to code the geographical location information in the suffix portion of the internet protocol address. Thus, Applicants respectfully submit that Tiuri fails to suggest embodiments of the present invention, specifically, coding geographical location information in the suffix portion of an internet protocol address.

Finally, Appellants respectfully submit that the MPEP specifically addresses when it is appropriate for an Examiner to use legal precedent as a source of supporting rationale for a rejection under 35 U.S.C. § 103, and the MPEP makes clear that this is not an appropriate scenario. Specifically, MPEP § 2144.04 states:

As discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. ... If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection. (see MPEP § 2144.04 – Legal Precedent as Source of Supporting Rationale).

As Appellants have shown: (1) that the facts of the case of *In re Japiske* are not sufficiently similar to the present application; and (2) the criticality of the limitation “wherein the geographical location information is coded in the suffix portion of the address,” as recited in claim 22, Appellants respectfully submit that it is inappropriate for the Final Office Action to solely rely on the legal reasoning of *In re Japiske* for its conclusion that claim 22 is obvious, and that the Final Office Action has not established sufficient rationale to establish a prima facie case that claim 22 is obvious in light of Tiuri.

Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

2) Claim 23

Claim 23 is dependent upon claim 22, and recites further limitations. Thus, claim 23 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

3) Claim 24

Claim 24 is dependent upon claim 22, and recites further limitations. Thus, claim 24 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

4) Claim 25

Claim 25 is dependent upon claim 22, and recites further limitations. Thus, claim 25 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

5) Claim 28

Claim 28 is dependent upon claim 22, and recites further limitations. Thus, claim

28 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

6) Claim 29

Claim 29 is dependent upon claim 22, and recites further limitations. Thus, claim 29 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

7) Claim 30

Claim 30 is dependent upon claim 22, and recites further limitations. Thus, claim 30 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

8) Claim 31

Claim 31 is dependent upon claim 22, and recites further limitations. Thus, claim 31 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

9) Claim 32

Claim 32 is dependent upon claim 22, and recites further limitations. Thus, claim 32 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

10) Claim 33

Claim 33, recites an apparatus, which includes a router configured to route internet protocol packets in which a unique address is based on geographical location information and has a global prefix portion and a local suffix portion. The apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork.

Appellants respectfully submit that claim 33 would not have been obvious to one of ordinary skill in the art, at the time the invention was made, and that the Final Office Action has failed to establish a prima facie case of obviousness.

The discussion of Tiuri, as discussed above, is incorporated herein.

The Final Office Action correctly concluded that Tiuri fails to disclose, or suggest, all of the elements of claim 33 (and thus, fails to anticipate claim 33 under 35 U.S.C. § 102) because Tiuri fails to disclose, or suggest, “wherein the apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork,” as recited in claim 33. However, the Final Office Action took the position that “wherein the apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork,” as recited

in claim 33 would have been obvious to one of ordinary skill in the art, at the time the invention was made (see Final Office Action at page 4). Thus, the only issue is one of obviousness under 35 U.S.C. § 103.

The Final Office Action's sole reasoning for its legal conclusion of obviousness is that the claimed element is a "rearranging of parts of an invention" and that "it has been held that rearranging parts of an invention involves only routine skilled [sic] in the art," citing *In re Japiske*, 86 USPQ 70 (see Final Office Action at page 4). For reasons similar to the reasons discussed above, with respect to claim 22, Appellants respectfully submit that the Final Office Action's rationale is insufficient to support a rejection under 35 U.S.C. § 103.

11) Claim 34

Claim 34 is dependent upon claim 33, and recites further limitations. Thus, claim 34 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

12) Claim 35

Claim 35 is dependent upon claim 33, and recites further limitations. Thus, claim 35 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

13) Claim 36

Claim 36 is dependent upon claim 33, and recites further limitations. Thus, claim 36 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

14) Claim 39

Claim 39 is dependent upon claim 22, and recites further limitations. Thus, claim 39 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

15) Claim 40

Claim 40 is dependent upon claim 33, and recites further limitations. Thus, claim 40 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

16) Claim 41

Claim 41 is dependent upon claim 33, and recites further limitations. Thus, claim 41 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

17) Claim 42

Claim 42 is dependent upon claim 33, and recites further limitations. Thus, claim 42 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

18) Claim 43

Claim 43 recites an apparatus, which includes routing means for routing internet protocol packets in which a unique address is based on geographical location information and has a global prefix portion and a local suffix portion. The apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork.

Appellants respectfully submit that claim 43 would not have been obvious to one of ordinary skill in the art, at the time the invention was made, and that the Final Office Action has failed to establish a prima facie case of obviousness.

The discussion of Tiuri, as discussed above, is incorporated herein.

The Final Office Action correctly concluded that Tiuri fails to disclose, or suggest, all of the elements of claim 43 (and thus, fails to anticipate claim 43 under 35 U.S.C. § 102) because Tiuri fails to disclose, or suggest, “wherein the apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork,” as recited in claim 43. However, the Final Office Action took the position that “wherein the apparatus is

configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork,” as recited in claim 43 would have been obvious to one of ordinary skill in the art, at the time the invention was made (see Final Office Action at page 5). Thus, the only issue is one of obviousness under 35 U.S.C. § 103.

The Final Office Action’s sole reasoning for its legal conclusion of obviousness is that the claimed element is a “rearranging of parts of an invention” and that “it has been held that rearranging parts of an invention involves only routine skilled [sic] in the art,” citing *In re Japiske*, 86 USPQ 70 (see Final Office Action at page 5). For reasons similar to the reasons discussed above, with respect to claim 22, Appellants respectfully submit that the Final Office Action’s rationale is insufficient to support a rejection under 35 U.S.C. § 103.

19) Claim 44

Claim 44 recites a unique internet protocol address embodied on a computer-readable medium, which includes a global prefix portion and a local suffix portion. The unique internet protocol address is generated from geographical location data of one of a node and a router connected to the node. The geographical location information is coded in the suffix portion of the unique internet protocol address.

Appellants respectfully submit that claim 44 would not have been obvious to one of ordinary skill in the art, at the time the invention was made, and that the Final Office Action has failed to establish a prima facie case of obviousness.

The discussion of Tiuri, as discussed above, is incorporated herein.

The Final Office Action correctly concluded that Tiuri fails to disclose, or suggest, all of the elements of claim 44 (and thus, fails to anticipate claim 44 under 35 U.S.C. § 102) because Tiuri fails to disclose, or suggest, “wherein said geographical location information is coded in said suffix portion of said unique internet protocol address,” as recited in claim 44. However, the Final Office Action took the position that “wherein said geographical location information is coded in said suffix portion of said unique internet protocol address,” as recited in claim 44 would have been obvious to one of ordinary skill in the art, at the time the invention was made (see Final Office Action at page 5). Thus, the only issue is one of obviousness under 35 U.S.C. § 103.

The Final Office Action’s sole reasoning for its legal conclusion of obviousness is that the claimed element is a “rearranging of parts of an invention” and that “it has been held that rearranging parts of an invention involves only routine skilled [sic] in the art,” citing *In re Japiske*, 86 USPQ 70 (see Final Office Action at page 5). For reasons similar to the reasons discussed above, with respect to claim 22, Appellants respectfully submit that the Final Office Action’s rationale is insufficient to support a rejection under 35 U.S.C. § 103.

20) Claim 45

Claim 45 recites a routing component, which includes a router configured to route internet protocol packets. A unique internet protocol address is based on geographical location information of either the routing component or a node connected to the routing component. The unique internet protocol address has a global prefix portion and a local suffix portion. The routing component is configured to utilize the geographic location

information, the geographic location information being coded to the suffix portion of the unique internet protocol address, in routing packets to destination nodes located in a subnetwork.

Appellants respectfully submit that claim 45 would not have been obvious to one of ordinary skill in the art, at the time the invention was made, and that the Final Office Action has failed to establish a prima facie case of obviousness.

The discussion of Tiuri, as discussed above, is incorporated herein.

The Final Office Action correctly concluded that Tiuri fails to disclose, or suggest, all of the elements of claim 45 (and thus, fails to anticipate claim 45 under 35 U.S.C. § 102) because Tiuri fails to disclose, or suggest, “wherein said routing component is configured to utilize said geographic location information, said geographic location information being coded to said suffix portion of said unique internet protocol address, in routing packets to destination nodes located in a subnetwork,” as recited in claim 45. However, the Final Office Action took the position that “wherein said routing component is configured to utilize said geographic location information, said geographic location information being coded to said suffix portion of said unique internet protocol address, in routing packets to destination nodes located in a subnetwork,” as recited in claim 45 would have been obvious to one of ordinary skill in the art, at the time the invention was made (see Final Office Action at page 6). Thus, the only issue is one of obviousness under 35 U.S.C. § 103.

The Final Office Action’s sole reasoning for its legal conclusion of obviousness is that the claimed element is a “rearranging of parts of an invention” and that “it has been held that rearranging parts of an invention involves only routine skilled [sic] in the art,”

citing *In re Japiske*, 86 USPQ 70 (see Final Office Action at page 6). For reasons similar to the reasons discussed above, with respect to claim 22, Appellants respectfully submit that the Final Office Action's rationale is insufficient to support a rejection under 35 U.S.C. § 103.

21) Claim 46

Claim 46 recites a system, which includes a router configured to route data packets between internet and a subnetwork, the subnetwork comprising a group of nodes. A unique internet protocol address is based on geographical location information of either the router or one node of the group of nodes. The unique internet protocol address has a global prefix portion and a local suffix portion, the router being configured to utilize the geographic location information, the geographic location information being coded to the suffix portion of the unique internet protocol address, in routing packets to destination nodes located in the subnetwork.

Appellants respectfully submit that claim 46 would not have been obvious to one of ordinary skill in the art, at the time the invention was made, and that the Final Office Action has failed to establish a prima facie case of obviousness.

The discussion of Tiuri, as discussed above, is incorporated herein.

The Final Office Action correctly concluded that Tiuri fails to disclose, or suggest, all of the elements of claim 46 (and thus, fails to anticipate claim 46 under 35 U.S.C. § 102) because Tiuri fails to disclose, or suggest, "wherein said unique internet protocol address has a global prefix portion and a local suffix portion, said router being configured to utilize said geographic location information, the geographic location information being

coded to said suffix portion of said unique internet protocol address, in routing packets to destination nodes located in said subnetwork,” as recited in claim 46. However, the Final Office Action took the position that “wherein said unique internet protocol address has a global prefix portion and a local suffix portion, said router being configured to utilize said geographic location information, the geographic location information being coded to said suffix portion of said unique internet protocol address, in routing packets to destination nodes located in said subnetwork,” as recited in claim 46 would have been obvious to one of ordinary skill in the art, at the time the invention was made (see Final Office Action at page 6). Thus, the only issue is one of obviousness under 35 U.S.C. § 103.

The Final Office Action’s sole reasoning for its legal conclusion of obviousness is that the claimed element is a “rearranging of parts of an invention” and that “it has been held that rearranging parts of an invention involves only routine skilled [sic] in the art,” citing *In re Japiske*, 86 USPQ 70 (see Final Office Action at page 6). For reasons similar to the reasons discussed above, with respect to claim 22, Appellants respectfully submit that the Final Office Action’s rationale is insufficient to support a rejection under 35 U.S.C. § 103.

B. Claims 26 and 37 are not obvious in view of Tiuri, Dobbins, and Bialk

In the Final Office Action, claims 26 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tiuri, in view of Dobbins, and further in view of Bialk. Appellants submit that each of claims 26 and 37 recite subject matter that is not obvious in light of Tiuri, Dobbins, and Bialk, and such, the Board’s reversal of the rejection is respectfully requested.

1) Claim 26

Claim 26 is dependent upon claim 22, and recites additional limitations.

The description of Tiuri, as discussed above, is incorporated herein. Dobbins discloses IP work group routing wherein multiple router interfaces are assigned the same IP network address. Dobbins further discloses that a transmission of datagrams is allowed only to or from hosts with certain addresses by locking network layer and physical layer addresses (see Dobbins at Abstract).

Bialk discloses a network management system and method for managing a hybrid fiber coaxial (HFC) network having network elements operable for communicating telephony, data and video signals with customer-premises equipment of a subscriber. A network management layer of the HFC network management system includes a network configuration manager which includes a service, design, and inventory (SDI) system having a database representing the HFC network. The database stores data representing the assigned capacity of the HFC network. The SDI system provides a query capability that includes a query by phone number, customer name, service address or network interface unit serial number (see Bialk at Abstract).

As discussed above, the Final Office Action has failed to establish a prima facie case that claim 22 is obvious in light of Tiuri. Furthermore, Dobbins and Bialk do not cure the deficiencies of Tiuri, as Dobbins and Bialk fail to disclose, or suggest, "wherein the geographical location information is coded in the suffix portion of the address," as recited in claim 22. In addition, the Final Office Action does not provide any additional evidence that claim 26 is obvious in light of Dobbins and Bialk. Thus, claim 26 is patentable at least

for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

2) Claim 37

Claim 37 is dependent upon claim 33, and recites additional limitations.

The descriptions of Tiuri, Dobbins and Bialk, as discussed above, are incorporated herein.

As discussed above, the Final Office Action has failed to establish a prima facie case that claim 33 is obvious in light of Tiuri. Furthermore, Dobbins and Bialk do not cure the deficiencies of Tiuri, as Dobbins and Bialk fail to disclose, or suggest, “the geographic location information coded to the suffix portion of the address,” as recited in claim 33. In addition, the Final Office Action does not provide any additional evidence that claim 37 is obvious in light of Dobbins and Bialk. Thus, claim 37 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

C. Claims 27 and 38 are not obvious in view of Tiuri and Orsic

In the Final Office Action, claims 27 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tiuri, in view of Orsic. Appellants submit that each of claims 27 and 38 recite subject matter that is not obvious in light of Tiuri, and Orsic, and such, the Board’s reversal of the rejection is respectfully requested.

1) Claim 27

Claim 27 is dependent upon claim 22, and recites additional limitations.

The description of Tiuri, as discussed above, is incorporated herein. Orsic discloses address updating of wireless mobile terminal hosts affiliated with a wired network. With respect to IP traffic, each base station is viewed as a router that connects a wireless access sub-network to the Global Internet. Each cell has its own IP address, referred to as "netid." Each wireless mobile terminal/host is comprised of (netid, hostid). In addition, when a mobile terminal/host detaches itself from an "old" base station, the terminal/host relinquishes its old IP address (see Orsic at Abstract).

As discussed above, the Final Office Action has failed to establish a prima facie case that claim 22 is obvious in light of Tiuri. Furthermore, Orsic does not cure the deficiencies of Tiuri, as Orsic fails to disclose, or suggest, "wherein the geographical location information is coded in the suffix portion of the address," as recited in claim 22. Thus, claim 27 is patentable at least for the reasons claim 22 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

2) Claim 38

Claim 38 is dependent upon claim 33, and recites additional limitations.

The description of Tiuri and Orsic, as discussed above, are incorporated herein.

As discussed above, the Final Office Action has failed to establish a prima facie case that claim 33 is obvious in light of Tiuri. Furthermore, Orsic do not cure the deficiencies of Tiuri, as Orsic fails to disclose, or suggest, "the geographic location

information coded to the suffix portion of the address,” as recited in claim 33. Thus, claim 38 is patentable at least for the reasons claim 33 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

D. Claim 44 is patentable under 35 U.S.C. § 101

Claim 44 recites a unique internet protocol address embodied on a computer-readable medium, which includes a global prefix portion and a local suffix portion. The unique internet protocol address is generated from geographical location data of one of a node and a router connected to the node. The geographical location information is coded in the suffix portion of the unique internet protocol address.

In the Final Office Action, claim 44 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Final Office Action alleged that an IP address is a data structure since it is a logical arrangement of bytes to identify a network device, and that the MPEP indicates that the data structure is non-statutory (see Final Office Action at page 2). In an after-final reply, Appellants amended claim 41 to recite “a unique internet protocol address embodied on a computer-readable medium, which includes a global prefix portion ...” (see Response Under 37 CFR § 1.116, filed December 21, 2007.) In an Advisory Action, the Examiner entered the claim amendment, but maintained the rejection, stating that “[a]mended claim 44 does not overcome 35 U.S.C. 101 rejection since the claimed invention is claim an IP address which is a data structure. Putting data structure on a computer-readable medium does not make it statutory since the IP address on a computer readable medium does not produce any

useful result.” (see Advisory Action at page 2).

Applicants respectfully submit that claim 44 recites functional descriptive material embodied on a computer-readable medium because the unique internet protocol address imparts functionality when employed as a computer component, and therefore, the claim is patentable under 35 U.S.C. § 101.

The Federal Circuit has dealt with the issues of whether data structures are statutory subject matter in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ 2d 1754 (Fed. Cir. 1994), and *In re Lowry*, 33 F.3d 1579, 32 USPQ 2d 1031 (Fed. Cir. 1994).

In *In re Warmerdam*, the claimed invention related to controlling the motion of objects and machines, such as robots, to avoid collision with other moving or fixed objects (*Warmerdam* 33 F.3d at 1354, 32 USPQ 2d at 1755). The invention included a method for generating a data structure and a machine containing the data structure in memory (*Id.*) The application claimed three separate forms of the invention: (1) claims 1-4 directed to a method of generating the data structure; (2) claim 5, directed to a machine with a memory containing the data structure; and (3) claim 6, directed to the data structure itself (*Id.*) The Federal Circuit held claims 1 through 4 and 6 to be nonstatutory subject matter. The court first stated that “[i]n *IEEE Standard Computer Dictionary* (1991), the phrase ‘data structure’ is defined as ‘[a] physical or logical relationship among data elements, designed to support specific data manipulation functions.’” (*Id.*, 32 USPQ 2d at 1760). The court stated that claims 1-4 were directed to the manipulation of ideas and that claim 6 was merely another way of describing the manipulation of ideas contained in claims 1-4 (*Id.*) Significantly, claim 5 was not rejected

on statutory subject matter grounds.

In *In re Lowry*, the invention provided an efficient flexible method of organizing stored data in a computer, with a data structure accessible by many different application programs. The data structure was stored on a computer-readable medium (i.e. stored in memory) and represented complex information in terms of attributes and relationship between attributes (see *Lowry*, 32 F.3d at 1579, 32 USPQ 2d at 1033). The court held that the claim directed to the data structured stored in computer memory was patentable, stating that “[m]ore than a mere abstraction, the data structures are specific electrical or magnetic structural elements in a memory,” and that “[the data structures] are physical entities that provide increased efficiency in computer operation.” (*Id.*, 32 USPQ 2d at 1033).

Thus, the Federal Circuit has made clear that data structures per se are not statutory subject matter, but that data structures stored on a computer-readable medium (i.e. a memory) are statutory subject matter, under 35 U.S.C. § 101.

The Patent Office has built upon the framework of *Warmerdam and Lowry*, issuing policies regarding computer-related subject matter in the MPEP. Specifically, MPEP § 2106.01 distinguishes between “function descriptive material” which the MPEP defines as data structures and computer programs which impart functionality when employed as a computer component, and “nonfunctional descriptive material” which the MPEP defines as including, but not limited to, music, literary works, and a compilation or mere arrangement of data (see MPEP § 2106.01 – Computer-Related Nonstatutory Subject matter). Furthermore, the MPEP states that both types of “descriptive material” are nonstatutory when claimed as descriptive material, per se, but when functional descriptive

material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases (see *Id.*)

Contrary to the position taken by the Examiner in the Advisory Action, an internet protocol address, when embodied on a computer medium, provides a useful and tangible result. Namely, it acts as a locator for a first network device, so that a second network device can locate it and interact with it. Furthermore, it allows the network devices to communicate with each other on a computer network utilizing the Internet Protocol standard. An internet protocol address is divided into two parts: a network id and a host id. Thus, an internet protocol address communicates important information to a second network device about the first device, such as what network and host the first network device is associated with. Furthermore, the claimed internet protocol address provides enhanced utility, by also communicating geographic location information of the first network device to the second network device when embodied on a computer-readable medium, as recited in the claimed limitations “wherein the unique internet protocol address is generated from geographical location data of one of a node and a router connected to said node,” and “wherein said geographical location information is coded in said suffix portion of said unique internet protocol address,” of claim 44. Thus, Appellants respectfully submit that claim 44 recites a useful, concrete, and tangible result.

Furthermore, Appellants respectfully submit that the internet protocol address recited in claim 44, is similar to the claimed data structure stored in memory in *Lowry*, and thus, is patentable subject matter under 35 U.S.C. § 101. Once the internet protocol address of claim 44 is embodied on a computer-readable medium (such as a computer memory), the internet protocol address forms a physical structure with specific electrical

and magnetic structural elements that provides increased efficiency in computer operation. Additionally, unlike the claim rejected in *Warmerdam*, claim 44 does not recite a data structure per se, but instead recites a “unique internet protocol address embodied on a computer-readable medium”. Therefore, Appellants respectfully submit that claim 44 of the present application, like the claim recited in *Lowry* recites patentable subject matter under 35 U.S.C. § 101.

Finally, Appellants respectfully submit that claim 44 of the present application recites functional descriptive matter under MPEP § 2601.01 because the internet protocol address, when structurally and functionally interrelated to a computer-readable medium, provides the functionality of allowing a network device to locate another network device on a network, and allow the two network devices to communicate over an Internet protocol. Furthermore, because claim 44 recites “a unique internet protocol address embodied on a computer readable medium”, said claim does not recite descriptive material per se, and instead recites patentable subject matter under 35 U.S.C. § 101.

For at least the reasons discussed above, Applicants respectfully submit that claim 44 recites patentable subject matter under 35 U.S.C. § 101. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

For all of the above noted reasons, it is strongly contended that certain clear differences exist between the present invention as claimed in claims 22-46 and the prior art relied upon by the Examiner. It is further contended that these differences are more than sufficient that the present invention would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

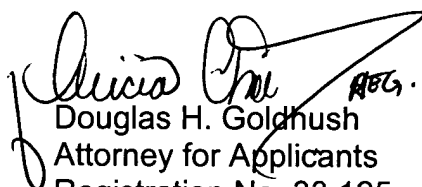
This final rejection being in error, therefore, it is respectfully requested that this

honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in this case and indicate the allowability of application claims 22-46.

In the event that this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Encls: Appendix 1 - Claims on Appeal
Appendix 2 - Evidence
Appendix 3 - Related Proceedings

APPENDIX 1

CLAIMS ON APPEAL

Claims 1-21. (Cancelled).

22. (Previously Presented) A method comprising:
generating a unique internet protocol address from the geographical location data,
wherein the internet protocol address has a global prefix portion and a local suffix
portion, and

wherein the geographical location information is coded in the suffix portion of the
address.

23. (Previously Presented) The method according to claim 22, wherein the
geographical location information is a three dimensional coordinate.

24. (Previously Presented) The method according to claim 22, wherein the
geographical location information is a two dimensional coordinate.

25. (Previously Presented) The method according to claim 22, wherein the
geographical location information includes additional information.

26. (Previously Presented) The method according to claim 25, wherein the
additional information is node specific information such as terminal number, node name,
node layer information, street address, serial number, color or weight.

27. (Previously Presented) The method according to claim 22, wherein the address based on the geographic location information assigned to a mobile device is updated when the mobile device moves and said new address is informed to a register that controls the location of said mobile device.

28. (Previously Presented) The method according to claim 22, wherein the address assigned to a mobile device comprises a device number and geographical location information of a router to which the mobile device is connected to.

29. (Previously Presented) The method according to claim 22, wherein the geographical location information is automatically detected.

30. (Previously Presented) The method according to claim 22, wherein the geographical information is manually entered.

31. (Previously Presented) The method according to claim 22, wherein addressing of subnets of a network is based on the geographic location of routers.

32. (Previously Presented) The method according to claim 22, wherein the addresses are used to improve the network performance by using the geographic location information in directing the radio signal to destination when radios are used in physical layer.

33. (Previously Presented) An apparatus comprising:

a router configured to route internet protocol packets in which a unique address is based on geographical location information and has a global prefix portion and a local suffix portion,

wherein the apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork.

34. (Previously Presented) The apparatus according to claim 33, wherein the geographic location information is a three dimensional coordinate.

35. (Previously Presented) The apparatus according to claim 33, wherein the geographic location information is a two dimensional coordinate.

36. (Previously Presented) The apparatus according to claim 33, wherein the geographical location information includes additional information.

37. (Previously Presented) The apparatus according to claim 36, wherein the additional information is node specific information such as terminal number, node name, street address, serial number, color or weight.

38. (Previously Presented) The apparatus according to claim 33, wherein the apparatus is configured to update the address assigned to a mobile device when the mobile device moves.

39. (Previously Presented) The apparatus according to claim 33, wherein the apparatus is configured to assign to a mobile device an address which consists of a device number and a geographical location information of a router to which the mobile device is connected to.

40. (Previously Presented) The apparatus according to claim 33, wherein the apparatus is configured to query the geographic location information from a client attached to a network.

41. (Previously Presented) The apparatus according to claim 33, wherein the apparatus is configured to assign the geographic location information and terminal device number to a client attached to a network.

42. (Previously Presented) The apparatus according to claim 33, wherein the apparatus is configured to utilize the geographic location information in directing the radio signal to destination when radios are used in physical layer.

43. (Previously Presented) An apparatus comprising:
routing means for routing internet protocol packets in which a unique address is

based on geographical location information and has a global prefix portion and a local suffix portion,

wherein the apparatus is configured to harness the geographic location information coded to the suffix portion of the address in routing packets to destination nodes located in a subnetwork.

44. (Previously Presented) A unique internet protocol address embodied on a computer-readable medium comprising:

a global prefix portion and a local suffix portion,

wherein the unique internet protocol address is generated from geographical location data of one of a node and a router connected to said node, and

wherein said geographical location information is coded in said suffix portion of said unique internet protocol address.

45. (Previously Presented) A routing component comprising:

a router configured to route internet protocol packets,

wherein a unique internet protocol address is based on geographical location information of one of said routing component and a node connected to said routing component,

wherein said unique internet protocol address has a global prefix portion and a local suffix portion, and

wherein said routing component is configured to utilize said geographic location information, said geographic location information being coded to said suffix portion of

said unique internet protocol address, in routing packets to destination nodes located in a subnetwork.

46. (Previously Presented) A system comprising:

a router configured to route data packets between internet and a subnetwork, said subnetwork comprising a group of nodes,

wherein a unique internet protocol address is based on geographical location information of one of said router and one node of said group of nodes, and

wherein said unique internet protocol address has a global prefix portion and a local suffix portion, said router being configured to utilize said geographic location information, the geographic location information being coded to said suffix portion of said unique internet protocol address, in routing packets to destination nodes located in said subnetwork.

APPENDIX 2

EVIDENCE APPENDIX

No evidence under section 37 C.F.R. 1.130, 1.131, or 1.132 has been entered or will be relied upon by Appellants in this appeal.

APPENDIX 3

RELATED PROCEEDINGS APPENDIX

No decisions of the Board or of any court have been identified under 37 C.F.R.

§41.37(c)(1)(ii)